

1644  
REC'DSerial Numbr: 08/823,980C

ENTERED

JUL 20

TECH CENTER 1600/2900

- Changed a file from non-ASCII to ASCII
- Changed the margins in cases where the sequence text was "wrapped" down to the next line
- Edited a format error in the Current Application Data section, specifically:
- 
- Edited the Current Application Data section with the actual current number. The number inputted by the applicant was  the prior application data; or  other \_\_\_\_\_
- Added the mandatory heading and subheadings for "Current Application Data".
- Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- Changed the spelling of a mandatory field (the headings or subheadings), specifically:
- 
- Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:
- 
- Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:
- 
- Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- Inserted colons after headings/subheadings. Headings edited included:
- 
- Deleted extra, invalid, headings used by an applicant, specifically:
- 
- Deleted:  non-ASCII "garbage" at the beginning/end of files;  secretary initials/filename at end of file;  page numbers throughout text;  other invalid text, such as \_\_\_\_\_
- Inserted mandatory headings, specifically:
- 
- Corrected an obvious error in the response, specifically:
- 
- Edited identifiers where upper case is used but lower case is required, or vice versa.
- 
- Corrected an error in the Number of Sequences field, specifically:
- 
- A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- 
- Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: \_\_\_\_\_
- Other: seq 107-109 - aligned a.a. nos
- 
- 

\*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/08/823,980C

DATE: 07/10/2000  
TIME: 12:31:41

Input Set : A:\Pto.amc  
Output Set: N:\CRF3\07102000\H823980C.raw

JUL 20 2000  
TECH CENTER 1600/2900

## SEQUENCE LISTING

## 4 (1) GENERAL INFORMATION:

6 (i) APPLICANT: Weiner, Amy J.  
7 Houghton, Michael  
9 (ii) TITLE OF INVENTION: Conserved Motif of Hepatitis C Virus  
10 E2/NS1 Region

12 (iii) NUMBER OF SEQUENCES: 134

14 (iv) CORRESPONDENCE ADDRESS:  
15 (A) ADDRESSEE: Chiron Corporation  
16 (B) STREET: 4560 Horton Street  
17 (C) CITY: Emeryville  
18 (D) STATE: CA  
19 (E) COUNTRY: USA  
20 (F) ZIP: 94608-2916

22 (v) COMPUTER READABLE FORM:  
23 (A) MEDIUM TYPE: Floppy disk  
24 (B) COMPUTER: IBM PC compatible  
25 (C) OPERATING SYSTEM: PC-DOS/MS-DOS  
26 (D) SOFTWARE: PatentIn Release #1.0, Version #1.25

## C--&gt; 28 (vi) CURRENT APPLICATION DATA:

C--> 29 (A) APPLICATION NUMBER: US/08/823,980C  
C--> 30 (B) FILING DATE: 25-Mar-1997  
31 (C) CLASSIFICATION:

33 (viii) ATTORNEY/AGENT INFORMATION:

34 (A) NAME: Rosen, Mark J.  
35 (B) REGISTRATION NUMBER: 39,822  
36 (C) REFERENCE/DOCKET NUMBER: CHIR-0108

## 38 (ix) TELECOMMUNICATION INFORMATION:

39 (A) TELEPHONE: 215-564-6525  
40 (B) TELEFAX: 215-568-3439

## 43 (2) INFORMATION FOR SEQ ID NO: 1:

45 (i) SEQUENCE CHARACTERISTICS:  
46 (A) LENGTH: 6 amino acids  
47 (B) TYPE: amino acid  
48 (C) STRANDEDNESS: single  
49 (D) TOPOLOGY: linear

51 (ii) MOLECULE TYPE: peptide

53 (ix) FEATURE:

54 (A) NAME/KEY: Xaa  
55 (B) LOCATION: 1  
56 (D) OTHER INFORMATION: /label= variable  
57 /note= "Represents Ala, Arg, Asp, Gly, Lys, Ser,  
58 or Thr"

60 (ix) FEATURE:

61 (A) NAME/KEY: Xaa  
62 (B) LOCATION: 2  
63 (D) OTHER INFORMATION: /label= variable

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Input Set : A:\Pto.amc  
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64 /note= "Represents Ile, Leu, Met, Phe or Trp"
65   (ix) FEATURE:
66     (A) NAME/KEY: Xaa
67     (B) LOCATION: 3
68     (D) OTHER INFORMATION: /label= variable
69 /note= "Represents Leu or Phe"
70   (ix) FEATURE:
71     (A) NAME/KEY: Xaa
72     (B) LOCATION: 6
73     (D) OTHER INFORMATION: /label= variable
74 /note= "Represents Ala or Gly"
75   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
W--> 81     Xaa Xaa Xaa Xaa Xaa
82       1           5
83 (2) INFORMATION FOR SEQ ID NO: 2:
84   (i) SEQUENCE CHARACTERISTICS:
85     (A) LENGTH: 32 amino acids
86     (B) TYPE: amino acid
87     (C) STRANDEDNESS: single
88     (D) TOPOLOGY: linear
89   (ii) MOLECULE TYPE: peptide
90   (ix) FEATURE:
91     (A) NAME/KEY: Xaa
92     (B) LOCATION: 1
93     (D) OTHER INFORMATION: /label= Dpr
94 /note= 2,3-diaminopropionic is acetyl cysteine
95   (ix) FEATURE:
96     (A) NAME/KEY: Xaa
97     (B) LOCATION: 2
98     (D) OTHER INFORMATION: /label= Ahe
99 /note= 2-amino heptanoic is butyl alanine
100  (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
W--> 113     Xaa Xaa Glu Thr His Val Thr Gly Gly Ser Ala Gly His Thr Val Ser
114       1           5           10          15
115     Gly Phe Val Ser Leu Ala Pro Gly Ala Lys Gln Asn Val Gln Leu
116       20          25          30
117
118 (2) INFORMATION FOR SEQ ID NO: 3:
119   (i) SEQUENCE CHARACTERISTICS:
120     (A) LENGTH: 5 amino acids
121     (B) TYPE: amino acid
122     (C) STRANDEDNESS: single
123     (D) TOPOLOGY: linear
124   (ii) MOLECULE TYPE: peptide
125   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
126     Val Ser Leu Ala
127       1           5
128 (2) INFORMATION FOR SEQ ID NO: 4:
129   (i) SEQUENCE CHARACTERISTICS:
130     (A) LENGTH: 7 amino acids
  
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RAW SEQUENCE LISTING DATE: 07/10/2000  
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Input Set : A:\Pto.amc  
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143               (B) TYPE: amino acid  
144               (C) STRANDEDNESS: single  
145               (D) TOPOLOGY: linear  
147        (iii) MOLECULE TYPE: peptide  
151        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:  
153        Ser Leu Leu Ala Pro Gly Ala  
154               1               5  
157 (2) INFORMATION FOR SEQ ID NO: 5:  
159        (i) SEQUENCE CHARACTERISTICS:  
160               (A) LENGTH: 5 amino acids  
161               (B) TYPE: amino acid  
162               (C) STRANDEDNESS: single  
163               (D) TOPOLOGY: linear  
165        (iii) MOLECULE TYPE: peptide  
169        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:  
171        Leu Ala Pro Gly Ala  
172               1               5  
176 (2) INFORMATION FOR SEQ ID NO: 6:  
178        (i) SEQUENCE CHARACTERISTICS:  
179               (A) LENGTH: 7 amino acids  
180               (B) TYPE: amino acid  
181               (C) STRANDEDNESS: single  
182               (D) TOPOLOGY: linear  
184        (iii) MOLECULE TYPE: peptide  
187        (ix) FEATURE:  
188               (A) NAME/KEY: Xaa  
189               (B) LOCATION: 7  
190               (D) OTHER INFORMATION: /label= variable  
191 /note= "Represents Ala, Pro or Ser"  
194        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:  
W--> 196        Ser Leu Leu Xaa Xaa Gly Xaa  
197               1               5  
200 (2) INFORMATION FOR SEQ ID NO: 7:  
202        (i) SEQUENCE CHARACTERISTICS:  
203               (A) LENGTH: 7 amino acids  
204               (B) TYPE: amino acid  
205               (C) STRANDEDNESS: single  
206               (D) TOPOLOGY: linear  
208        (ii) MOLECULE TYPE: peptide  
210        (ix) FEATURE:  
211               (A) NAME/KEY: Xaa  
212               (B) LOCATION: 7  
213               (D) OTHER INFORMATION: /label= variable  
214 /note= "Represents Ala, Pro or Ser"  
217        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:  
W--> 219        Ser Leu Phe Xaa Xaa Gly Xaa  
220               1               5  
224 (2) INFORMATION FOR SEQ ID NO: 8:  
226        (i) SEQUENCE CHARACTERISTICS:

RAW SEQUENCE LISTING DATE: 07/10/2000  
PATENT APPLICATION: US/08/823,980C TIME: 12:31:41

Input Set : A:\Pto.amc  
Output Set: N:\CRF3\07102000\H823980C.raw

227 (A) LENGTH: 31 amino acids  
228 (B) TYPE: amino acid  
229 (C) STRANDEDNESS: single  
230 (D) TOPOLOGY: linear  
232 (iii) MOLECULE TYPE: peptide /  
234 (ix) FEATURE:  
235 (A) NAME/KEY: Xaa  
236 (B) LOCATION: 1  
237 (D) OTHER INFORMATION: /label= variable  
238 /note= "Represents Any Amino Acid"  
240 (ix) FEATURE:  
241 (A) NAME/KEY: Xaa  
242 (B) LOCATION: 3  
243 (D) OTHER INFORMATION: /label= variable  
244 /note= "Represents Any Amino Acid"  
246 (ix) FEATURE: /  
247 (A) NAME/KEY: Xaa  
248 (B) LOCATION: 8  
249 (D) OTHER INFORMATION: /label= variable  
250 /note= "Represents Any Amino Acid"  
252 (ix) FEATURE: /  
253 (A) NAME/KEY: Xaa  
254 (B) LOCATION: 14  
255 (D) OTHER INFORMATION: /label= variable  
256 /note= "Represents Any Amino Acid"  
257 (ix) FEATURE:  
258 (A) NAME/KEY: Xaa  
259 (B) LOCATION: 16  
260 (D) OTHER INFORMATION: /label= variable  
261 /note= "Represents Any Amino Acid"  
263 (ix) FEATURE:  
264 (A) NAME/KEY: Xaa  
265 (B) LOCATION: 17  
266 (D) OTHER INFORMATION: /label= variable  
267 /note= "Represents Any Amino Acid"  
269 (ix) FEATURE: /  
270 (A) NAME/KEY: Xaa  
271 (B) LOCATION: 21  
272 (D) OTHER INFORMATION: /label= variable  
273 /note= "Represents Any Amino Acid"  
275 (ix) FEATURE: /  
276 (A) NAME/KEY: Xaa  
277 (B) LOCATION: 22  
278 (D) OTHER INFORMATION: /label= variable  
279 /note= "Represents Any Amino Acid"  
281 (ix) FEATURE:  
282 (A) NAME/KEY: Xaa  
283 (B) LOCATION: 24  
284 (D) OTHER INFORMATION: /label= variable

RAW SEQUENCE LISTING DATE: 07/10/2000  
 PATENT APPLICATION: US/08/823,980C TIME: 12:31:41

Input Set : A:\Pto.amc  
 Output Set: N:\CRF3\07102000\H823980C.raw

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285 /note= "Represents Any Amino Acid"
287   (ix) FEATURE:
288     (A) NAME/KEY: Xaa
289     (B) LOCATION: 27
290     (D) OTHER INFORMATION: /label= variable
291 /note= "Represents Any Amino Acid"
293   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
W--> 295     Xaa Thr Xaa Val Thr Gly Gly Xaa Ala Ala Arg Thr Thr Xaa Gly Xaa
296     1 /           5 \           10 /           15
W--> 298     Xaa Ser Leu Phe Xaa Xaa Gly Xaa Ser Gln Xaa Ile Gln Leu Ile
299     20             25             30
303 (2) INFORMATION FOR SEQ ID NO: 9:
305   (i) SEQUENCE CHARACTERISTICS:
306     (A) LENGTH: 31 amino acids
307     (B) TYPE: amino acid
308     (C) STRANDEDNESS: single
309     (D) TOPOLOGY: linear
311   (iii) MOLECULE TYPE: peptide
313   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
315     Ala Thr Tyr Ala Thr Gly Ala Ala Gln Gly His Ala Thr Asn Ser Phe
316     1           5           10           15
318     Val Ser Leu Phe Arg Ser Gly Ala Ser Gln Asn Leu Lys Leu Val
319     20           25           30
322 (2) INFORMATION FOR SEQ ID NO: 10:
324   (i) SEQUENCE CHARACTERISTICS:
325     (A) LENGTH: 31 amino acids
326     (B) TYPE: amino acid
327     (C) STRANDEDNESS: single
328     (D) TOPOLOGY: linear
330   (iii) MOLECULE TYPE: peptide
332   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
334     Ser Thr Gln Val Thr Gly Gly Gln Ala Ala His Thr Val Arg Gly Val
335     1           5           10           15
337     Ala Ser Ile Phe Ser Pro Gly Ser Arg Gln Asp Ile Ser Leu Ile
338     20           25           30
342 (2) INFORMATION FOR SEQ ID NO: 11:
344   (i) SEQUENCE CHARACTERISTICS:
345     (A) LENGTH: 31 amino acids
346     (B) TYPE: amino acid
347     (C) STRANDEDNESS: single
348     (D) TOPOLOGY: linear
350   (iii) MOLECULE TYPE: peptide
352   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
354     Ser Thr Arg Val Thr Gly Gly Gln Gln Gly Arg Ala Val His Gly Ile
355     1           5           10           15
357     Ala Ser Leu Phe Ser Leu Gly Ala Ser Gln Lys Ile Gln Leu Val
358     20           25           30
360 (2) INFORMATION FOR SEQ ID NO: 12:
362   (i) SEQUENCE CHARACTERISTICS:

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**VERIFICATION SUMMARY** DATE: 07/10/2000  
PATENT APPLICATION: US/08/823,980C TIME: 12:31:42

Input Set : A:\Pto.amc  
Output Set: N:\CRF3\07102000\H823980C.raw

L:28 M:220 C: Keyword misspelled or invalid format, [(vi) CURRENT APPLICATION DATA:]  
L:29 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]  
L:30 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]  
L:81 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:113 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:196 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:219 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:295 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:298 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:2737 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:133  
L:2757 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:134

1644

RAW SEQUENCE LISTING DATE: 07/07/2000  
PATENT APPLICATION: US/08/823,980C TIME: 12:29:11

Input Set : A:\ES.txt  
Output Set: N:\CRF3\07072000\H823980C.raw

## SEQUENCE LISTING



**Does Not Comply  
Corrected Diskette Needed**

## ERRORED SEQUENCES

- 2176 (2) INFORMATION FOR SEQ ID NO: 107:  
2177 (i) SEQUENCE CHARACTERISTICS:  
2178 (A) LENGTH: 31 amino acids  
2179 (B) TYPE: amino acid  
2180 (C) STRANDEDNESS: single  
2181 (D) TOPOLOGY: linear  
2182 (ii) MOLECULE TYPE: peptide  
2183 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 107:  
2184 Ala Thr Tyr Thr Ser Gly Gly Val Ala Gly Arg Thr Thr Ser Gly  
2185 1 5 10 15  
2186 Phe Thr Ser Leu Phe Ser Ser Gly Ala Ser Gln Lys Ile Gln Leu Val  
2187 25 25 30 35  
E--> 2218 (2) INFORMATION FOR SEQ ID NO: 109:

RAW SEQUENCE LISTING DATE: 07/07/2000  
PATENT APPLICATION: US/08/823,980C TIME: 12:29:11

Input Set : A:\ES.txt  
Output Set: N:\CRF3\07072000\H823980C.raw

2220       (i) SEQUENCE CHARACTERISTICS:  
2221           (A) LENGTH: 31 amino acids  
2222           (B) TYPE: amino acid  
2223           (C) STRANDEDNESS: single  
2224           (D) TOPOLOGY: linear  
2226       (ii) MOLECULE TYPE: peptide  
2230       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 109:  
2231           Glu Thr His Thr Thr Gly Arg Val Val GLY His Thr Thr Ser Gly  
2232           1                           5                           10                           15  
2234           Phe Thr Ser Leu Phe Ser Ser Gly Ala Ser Gln Lys Ile Gln Leu Val  
E--> 2235           20 20                   25 25                   20 30  
2744       (2) INFORMATION FOR SEQ ID NO: 134:  
2746       (i) SEQUENCE CHARACTERISTICS:  
2747           (A) LENGTH: 6 amino acids  
2748           (B) TYPE: amino acid  
2749           (C) STRANDEDNESS: single  
2750           (D) TOPOLOGY: linear  
2751       (ii) MOLECULE TYPE: peptide  
2755       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 134:  
W--> 2757       Ser Leu Phe Xaa Xaa Gly  
2758           1                           5  
E--> 2761 1  
E--> 2764 1

VERIFICATION SUMMARY DATE: 07/07/2000  
PATENT APPLICATION: US/08/823,980C TIME: 12:29:12

Input Set : A:\ES.txt  
Output Set: N:\CRF3\07072000\H823980C.raw

L:28 M:220 C: Keyword misspelled or invalid format, [(vi) CURRENT APPLICATION DATA:]  
L:29 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]  
L:30 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]  
L:81 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:113 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:196 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:219 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7  
L:295 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:298 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:2194 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:107  
L:2235 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:109  
L:2737 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:133  
L:2757 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:134  
L:2761 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:134  
M:332 Repeated in SeqNo=134